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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,548	07/02/2003	Chris L. Willis	20030001-US	3563
42716	7590	12/28/2005	EXAMINER	
MAINE & ASMUS P. O. BOX 3445 NASHUA, NH 03061			KIM, ELLEN E	
			ART UNIT	PAPER NUMBER
			2874	

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/612,548	<b>Applicant(s)</b> WILLIS, CHRIS L.	
	<b>Examiner</b> Ellen Kim	<b>Art Unit</b> 2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2005.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-12, 14-20, 22 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This is responsive to Applicant's RCE filed on 12/13/05.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claims 13-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokomachi et al [USPAT 5,483,608] and in view of Helmer [USPAT 3,885,205].**

Yokomachi et al disclose an optical switch for switching plural optical fibers and the method comprising:

A platform 20 [fig. 15] that pivots about an axis of rotation, and having a range of motion that includes a stowed position and a deployed position;

A hard stop 19c [as shown in fig. 15] proximate the platform 20, thereby defining the deployed position;

A motor 19 having an actuator arm [element between 19 and 19c]; and

A push/pull spring 32 [fig. 15] operatively coupling the platform to a motor assembly, and adapted to preload the platform against the hard stop, thereby holding the platform in the first position despite opposing forces.

Yokomachi et al disclose every aspect of claimed invention except for the rotating motor assembly.

Helmer discloses a controlled rotating motor.

It would have been obvious to the ordinary skilled person in the art at the time the invention was made to modify Yokomachi et al device to include the Helmer's rotating motor for the purpose of controlled variable speed and constant torque [Helmer's abstract]. It is clear this improve the Yokomachi et al device.

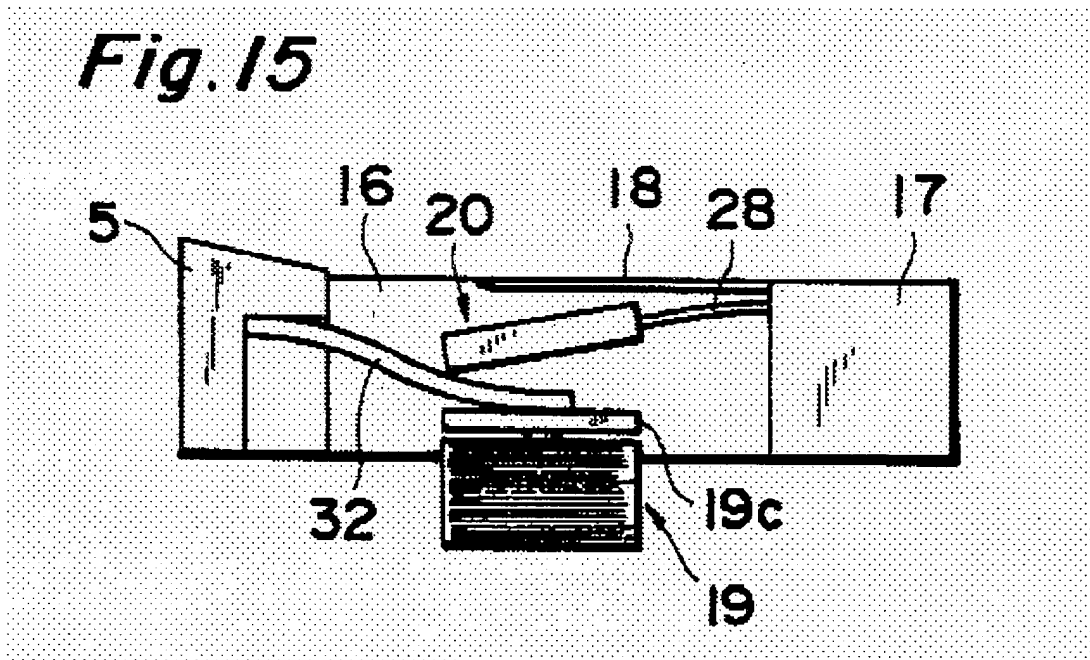
With respect to claims 14 and 15, Yokomachi et al show in Fig. 27 a controller 31, which commands deployment and non-deployment of the optic.

With respect to claims 16, 17, 19, and 20, Yokomachi et al show in fig. 1 a sensor 13, and a linear encoder 14.

***Response to Amendment and Argument***

Applicant argues that Yokomachi does not describe movement of the platform as claimed in claim 13.

Examiner does not agree with Applicant's argument because as shown below, the fig. 15 clearly shows the pivot point [end of the element 28 close to element 17]. The platform 20 is rotational from the pivot point axis of rotation.



***Allowable Subject Matter***

Claims 1-12, 14-20, and 22 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: the prior art does not disclose or suggest an optic switching system and the

Art Unit: 2874

method comprising all the specific components with the specific combination including rotating a shaft of the motor, wherein the shaft is coupled to the push/pull spring as set forth in claim 14. The reasons for allowance of claims 1-12 are discussed in the previous Office action.

### ***Conclusion***

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

For all official patent application related correspondence for organizations reporting to the Commissioner of Patents:

- Correspondence that is transmitted by facsimile must be directed to the central facsimile number, (703) 872-9306.

Art Unit: 2874

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen Kim whose telephone number is (571) 272-2349.

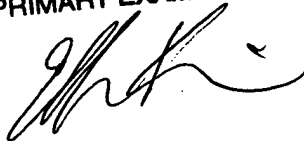
The examiner can normally be reached on Monday through Thursday.

Ellen E. Kim

Primary Examiner

December 23, 2005/EK

**ELLEN E. KIM**  
**PRIMARY EXAMINER**

A handwritten signature in black ink, appearing to be 'E. Kim', written over the printed name and title.